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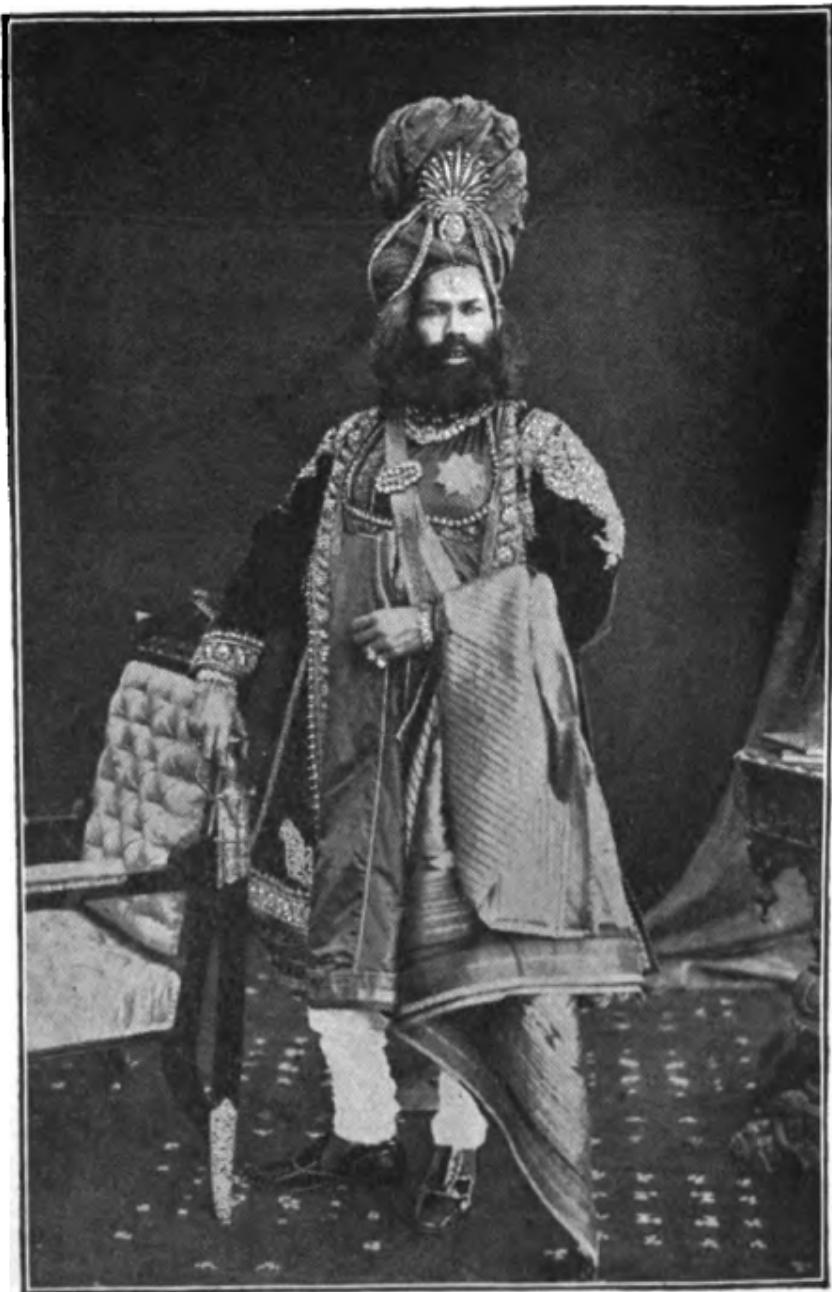
# Pearls

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# PEARLS

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The Pearl is considered the most aristocratic of the precious gems. Its iridescent beauty and brilliancy, its unassuming individuality, known rareness and value, make it the most sought of the gems, by purchasers of discrimination and taste.

The searcher for Pearls and Pearl Jewelry will find our display of unusual richness and beauty. Our collection includes exquisite rings, scarf pins, pendants and bar pins, formed of Pearls and Pearls combined with Diamonds and other Gems, sometimes enhanced by unique and beautiful lacy mountings of platinum; also the more elaborate and larger ornaments, bracelets, brooches and collar-ettes, and the most aristocratic of ornaments, the Pearl Necklace, glorious in its simplicity, wonderful in its beauty.

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FREDERIC J. VON RAPP

PHILADELPHIA

## PEARLS

FROM the earliest times, pearls, on account of their natural beauty, not requiring the art of man to improve them, have been considered among the most splendid of gems.

The civilized and uncivilized peoples of all times valued pearls, for in the earliest Scriptures of the Hebrews frequent mention is made of them and history tells us that they were highly prized by the Greeks and Romans, who called them "Margari-tae." Pliny states that pearls were not only used in enormous quantities for adornment by the wealthy Romans, but were ground into a fine powder and mixed with their wine, with the idea of giving it a better flavor. While the accumulation of pearls among the Greeks and Romans

was considerable, at the present day there are comparatively few of these in existence, and of little value for ornamental use, though nevertheless fairly well preserved.

Pearls, according to early Chinese records, were greatly esteemed, and used by them in the temples as well as for adornment. They believed that pearls acted as charms against fire and other misfortunes, and used them as a cure for mental diseases and stomach troubles.

Due to their possession of the rich pearl fisheries of Ceylon and the Persian Gulf, the people of India and Persia were among the earliest to collect pearls. And the Indian and Persian princes have been enabled to acquire large collections of them, which have never been equalled in any other country. Some of these

princes of India have been known to wear thousands of pearls and pearl ornaments, worth millions of dollars. In India in ancient times, the color of pearls worn was supposed to have the following effects on those wearing them: a blue pearl, good luck; a light yellow one, wealth; a white pearl, fame or glory; and one of dark yellow, a good understanding. Even with the early Egyptians, as well as Persians, pearls were popular.

Up to the Ninth Century pearls were chiefly used for ornamental purposes, but after this, for a period of about five hundred years, they were also prescribed for nearly every kind of illness. The smallest pearls were used to the greatest extent on account of their price, though the wealthy did not limit themselves to size. In Europe, the Crusaders developed to

an extensive degree the use of pearls for adornment, and they became very fashionable with the men as well as the women of that period, as much for decoration as ornament.

Up to the present time, the demand for pearls has increased continuously, and they often bring in individual quality a higher price, weight for weight, than any other precious gem.

## OCCURRENCE

PEARLS of the finest quality are produced by the pearl mollusk, known as the *Meleagrina Margaritifera*, that inhabits the seas and rivers of many temperate regions. Having a shell from two to eight inches in diameter, this bivalve mollusk usually occurs in sheltered portions of the Indian Ocean and in some parts of the Tropical Zone of the Pacific.

Grouped like the common oyster in colonies, generally on the banks of coral twenty to thirty feet deep, it is attached by a byssus, which must be torn loose before gathering.

The pearl bearing mollusk is of a greenish black color on the outside, and its interior is lined with a beautiful silvery white nacre or Mother-of-Pearl, which in some degree bears the

lustre of the pearl. While the exterior of a mollusk may be covered with seaweeds or other foul, slimy matter of the sea, within where dwells their delicate bodies, it is always clean and beautiful. The pearl mollusk not only makes the interior of its shell lustrous and beautiful, but all other objects which come in contact with certain parts of its soft body.

This covering of foreign or other objects by nacre, which consists principally of a variety of calcium carbonate, is the process by which pearls are formed. The formation of a pearl is believed to be due to the irritation of the tender tissues of the mollusk, causing an abnormal flow of nacre or Mother-of-Pearl, which covers the object at first with a very thin coating, increasing its size with layer upon layer. Therefore, a pearl is an

accumulation of Mother-of-Pearl substance.

The nucleus of many pearls is a tiny grain of sand, a boring parasite, a worm, or even in some cases an egg of the mollusk itself. Only about one in thirty or forty mollusks is found to contain pearls, and this plainly shows that the formation of a pearl is an abnormal condition in the life of the oyster. This is so well understood among the pearl fishers that usually they only search for those mollusks that appear old, distorted, irregular and show signs of having been affected by boring parasites.

The origin of pearls, as explained and understood in early days, has very little weight with authorities of the present time, and while theories as to their origin have been confirmed in numbers of cases, at the same

time, science is unable to state definitely their every source of development. Most of the present day authorities seem to be of the opinion, due to much investigation, that in the greater number of cases the formation of pearls is caused by parasites or worms.

The Chinese, knowing the habits of the pearl mollusk to cover all foreign objects with pearl, have opened the shells and placed therein small images of their gods and beads, etc., which, upon closing, they return to the water to lie unmolested for some time. They are eventually taken out, and found covered with pearl substance, but not of the same beautiful lustre or color of the natural pearl.

The structure of the pearl, as previously explained, is made up of

numerous layers or coatings of microscopic thickness, of the same substance as the Mother-of-Pearl lining of the mollusk. These coatings overlap one another and the pearl's construction has the same appearance, when it is cut in two, as an onion. Due to this construction a fine pearl, is beautiful, complete and perfect, whether gathered when it is of the smallest size, or later when unusually large. With the exception of the nucleus, all beautiful pearls are made up entirely of coats of nacre, as is also the lining of the mollusk. Should a pearl be heated to any great extent these concentric coats would peel off and become separated from each other.

The many forms that pearls assume are due to their position in the mollusk, and also to the shape of the

nucleus. For example, pearls formed by different parts of the mantle of the oyster, often differ in appearance and shape; such as the spherical one, which is no doubt formed in the inside of the soft part of the mantle, as this perfect form of a pearl does not come in contact with any hard substance to interfere with the entire coating of its round surface. Should a pearl be formed by some boring parasite entering through the shell, then the pearl produced is liable to be of a wart-like appearance, known as a "Button Pearl."

Circumstances govern the number of pearls found in a mollusk, but it is only in exceptional cases that a great quantity has developed. A most remarkable case was a mollusk from the Indian Ocean containing eighty-seven pearls. As a rule, the greater

the number of pearls found in a shell,  
the smaller they are.

Next in importance to the pearl  
mollusk just described is the Union-  
idae *Margaritifera*, known as the  
fresh water pearl mussel, which pro-  
duces beautiful pearls, but usually  
not of the value of those of marine  
origin. These fresh water pearl mus-  
sels are found in greatest numbers in  
the Mississippi Valley region and  
most always lie on sandy bottoms, in  
clear running water, anywhere from  
two to twenty feet deep.

## PEARL FISHING

**S**INCE most ancient times, the fisheries of the coasts of Ceylon and India, the Persian Gulf and the Red Sea, have been and are the most important in the production of the *Meleagrina Margaritifera* or marine pearl mollusk. While there are many kinds of mollusks that produce pearls, the two most important are the one just mentioned, which inhabits the warm seas, and the other the fresh water pearl mussel of streams and rivers of America and other countries.

### CEYLON

For a period covering a great many years, the Ceylon pearl fisheries have been very unreliable and uncertain, and the disappearance of mollusks from some of the banks forms one of the peculiarities of these fisheries. It

is stated that during a recorded period of one hundred years, there only occurred about thirty-six years of possible fishing. The pearl fishery in the Gulf of Manaar, on the North-west coast of Ceylon, lying immediately South of Adam's Bridge, is the most important in that region, not only on account of the fine quality of its pearls, but also for the great quantities found.

Until within the last few years, the British Government controlled the Ceylon fisheries, deciding at what time a fishery should occur, the extent and where the ground should be opened, by a previous examination. This official inspection is usually made the November previous to the fishing period of March and April (the time when the sea is the quietest), to determine what area may be

fished in, how many boats allowed, the number of days the fishing will last, and the approximate value of the pearls. This valuation is reached by the inspector's examination of the proposed area, which is attained by several boats containing divers, working from the center in circles, toward the boundary lines. The divers are sent down at intervals from these boats as they progress, to collect all the matured mollusks possible in each single dive; the ones between four and seven years old being the most productive.

Estimates are then made from over three hundred lots collected as to the number of pearl oysters within a given area, by counting those collected in so many square yards (which is about two or three). Not only is the number in the beds estimated

upon, but the approximate valuation and quantity of pearls found in each one thousand mollusks is reached by expert appraisers, after sorting and weighing. An exact valuation of pearls that a fishery will produce is often problematical, for there have been many cases where the returns have been much above the estimate.

If it is decided that conditions warrant a fishery, the result of the preliminary examination is published, with announcement of the area and fishing date, and the news travels very quickly throughout India, Ceylon and the East. This notice of the fishery is the signal for great preparation among thousands of persons in the surrounding country, who contribute to make up the multitude of fishermen, merchants, mechanics and laborers who attend.

Then some time, about the first of March, from thirty thousand to fifty thousand people gather along the water, at a point most convenient to the buoyed-off pearl oyster grounds. Here a town of about one square mile area springs up in a few days, with streets, houses, shops, markets, banks, postal and telegraph offices and other necessary buildings and departments, such as a town of fifty thousand would need. At the close of the fishery the place disappears as quickly as it grew into being, and that locality becomes a mere sand waste.

Most of the people assembled come from India, Arabia and Ceylon, and represent many tongues and at least a half a dozen religions. The town is not only made up of the previously mentioned people, who bear a legitimate part in the pearl industry, but

of gamblers, beggars, fakirs and low characters of both sexes, who are there to prey on the susceptible. They say that the dissolute make up about one tenth of the population.

Due to the short period for fishing, the work is carried on with greater strenuousness here than at any other fishery. The fishing boats, drawn up on the beach in a long line, are of every conceivable rig, from vessels that carry at least sixty-five men to small single-masted canoes, such as used in the East. The fleet of several hundred boats containing the divers and assistants, leaves its moorings some time after midnight, in order to be at the fishing grounds, ready for work, at sunrise. A signal to start fishing is given from the guard boat about six a. m. and also

at twelve noon, when the day's fishing is supposed to end.

The divers, who are naked, except for a loin cloth, protect their fingers from the rough shells and coral, by wearing soft leather shields. To facilitate the diver in his descent, a stone weighing anywhere from thirty to fifty pounds, according to the weight of the man and the depth to be used, is hung about four to five feet below the surface of the water, from a pole or outrigger. On the rope, just above this stone (which is attached by means of a hole through its center) a loop or stirrup is made in which the diver places his foot.

When prepared to descend the diver grasps the rope, with the stone attached, places one foot in the loop, just above the stone, and the other foot on the rim of a net basket sus-

pended from a rope, inflates his lungs with a deep breath, loosens the slip knot which controls the dropping of the stone, and sinks as quickly as possible to the bottom. At once withdrawing his foot from the stone, he quickly crawls around the ground, tears as many oysters loose as are within his reach, puts them in his basket, and signals his watchful helper, or "manduck" to pull him to the surface, which ascent is hastened by the diver drawing himself up hand over hand.

The assistant draws up the net basket and sorts over the contents, throwing back into the sea such refuse that is bound to be gathered indiscriminately in so short a working time. As the divers work on shares, the "manduck" keeps each man's catch separate. Generally

there is one attendant and one diving stone for two divers, the diving occurring at intervals of five or six minutes. Most of the best divers take very good care of themselves while at work, drying their bodies after each descent and allowing time for necessary rest. The usual time spent below the surface is from sixty to seventy-five seconds, and the average number of oysters on good ground per man, per dive, is twenty-five to thirty-five, according to the ease with which they are collected.

At the end of the day's fishing, the fleet makes as quick a return to the shore as possible, although, due to adverse winds, they are often delayed considerably. It is said that whenever the return trip is long enough to allow, the divers and assistants take advantage of it to open mollusks

and conceal any pearls found. The Government has discovered that it is impossible to entirely suppress this looting, which has amounted at times to almost a fourth of the catch.

When the boats are beached, the oysters are taken out at once and carried into the thatched bamboo enclosures of the Government, divided on the inside into square pens, each marked with the corresponding number of a boat. There, after sorting their catch into three piles of the same number, the diver, on receiving his one third from the agent, divides with his helper and those who provide the boats.

On passing out of the Government enclosure, the divers are immediately surrounded by crowds of natives, eager to purchase oysters in small quantities, for the spirit of specula-

tion runs very high, every person being anxious to test his fortune to some degree, at least, as the opportunity is the same for all. The natives may buy one or a dozen or more as they wish.

At the end of the day the two thirds share of the Government is sold at auction and disposed of in lots of one or more thousand only.

Those who buy the pearl oysters in small numbers usually open them with a knife to search for pearls, but buyers of large quantities have them deposited in a private enclosure, where they lie in the sun and rot for about ten days. At the end of that time a thorough decomposition of the soft part of the mollusk allows the pearls to be washed from the filthy mass. Most appalling is the stench from the rotting oysters, and

for this reason they are kept on the outskirts of the town.

For lustre or "orient" and also spherical regularity, the pearls of the Ceylon excel those of any other fishery. Of a silvery white color, as a rule, the majority weigh less than two grains, anything between that weight and ten grains being considered quite large. Due to the utmost care and method in obtaining pearls, the Ceylon fishery has always been the greatest producer of the seed pearl, also the very minute ones, of no value for ornamental use, which are sold in India to be ground up for chewing with the betel nut.

At the present day these fisheries are under the control of an English syndicate, leased by them from the Government, and no new methods for working the grounds have been

introduced, as there has not been a fishery for several years.

## **GULF OF PERSIA**

The banks in the Persian Gulf have been operated since the earliest recorded times and are undoubtedly the most important and valuable on account of their annual yield, which is not uncertain like that of the Gulf of Manaar. The oyster reefs are distributed all over the Persian Gulf but are most productive along the Arabian side and near the Bahrain Islands. They are worked a good part of the year by the Arabs, who fish where and when they please, without allowing any interference, employing the same methods for collecting the pearl mollusk as those in Ceylon.

**It is estimated that thirty-five hun-**

dred boats and thirty-five thousand men are employed, comprising Arabs, who are the divers, Hindoos, Negroes, and many others from nearby countries.

Usually the Indian traders from Bombay, the pearl market of the East, supply the capital for equipment, food, etc., taking advantage of this to buy the pearls in large lots at their own price, at the expense of the poor diver whose profit is reduced to almost nothing.

Pearls from the Persian Gulf have more of a yellow tinge in comparison with the white ones of the Indian Ocean and the mollusk is about twice the size of that of the Ceylon fisheries.

#### **THE RED SEA FISHERIES AND OTHERS**

While by no means as extensive as

the Ceylon and Persian Gulf fisheries, those of the Red Sea have yielded pearls for at least twenty-five hundred years. The banks seem to be scattered over most of the Red Sea, excepting the Southern part, and are worked in the Spring and Autumn in about the same manner as those previously described. Here also, as in the Persian Gulf, the men who control the fisheries are sole masters of the situation and the poor fishermen, who come under their command are badly treated. The Red Sea fisheries are not at the present day as productive as they have been in the past.

Pearl oyster banks occur in many other parts of the World beside those just mentioned, such as the coast of China, Gulf of Aden, the Malay Archipelago and the coast of Australia.

The last named produces the largest pearl mollusks known, in which are found fine large pearls. These mollusks sometimes measure twelve inches in diameter.

On the American Continents the pearl mollusk is found off the coast of Venezuela, in the Gulf of California, and off the coasts of Mexico and Panama. Black pearls have been a specialty of the California fisheries for many years.

The fresh water pearl mussel, though secondary in comparison with the marine pearl oyster, nevertheless produces pearls of good quality. It has been estimated that one pearl is found in every hundred mussels, and only about one percent of these are much above the average. The pearl mussel, while inhabiting rivers and streams in all parts of the

world, is found in greater quantities in temperate countries.

It is in North America that the Unionidae are most abundant, particularly in the basin of the Mississippi and some of its tributaries. This locality has supplied many of the baroque or irregular pearls used so much the last fifteen years. Here the search for pearls is carried on by persons out of regular employment who have no one systematic method of collecting the pearl mussel.

In some localities they are gathered from the bottom of the stream, with an iron rake, in others by dredging, and in shallow water by treading them out, using the bare feet to discover where they lie.

As in the case of the marine pearl oyster, it is useless to attempt to find

pearls in any but abnormal and distorted shells, although it is said that in Arkansas, pearls have been found lying loose in the streams.

## HARDNESS

THE pearl is not only identical with Mother-of-pearl in structure, but also in composition, hardness and specific gravity. In composition it consists principally of aragonite, a variety of carbonate of lime. Due to its composition, a pearl dissolves readily in acid, to such a degree that nothing is left but a dead lustreless pearl-like mass.

The hardness of pearls is only between three and four in that scale in which the diamond ranks as ten. Pearls which are strung together poorly are affected by constantly rubbing against one another. When outwardly marred the outer laminated coating can sometimes be removed exposing another layer almost as good as the first, although slightly

different in color. This is an operation, however, that requires the greatest of care by the most skilled artists, and even then is rarely a complete success.

Pearls which are unusually lustrous are said to be somewhat harder than the more ordinary specimens. Black pearls are the hardest of all, and when particularly fine are almost as valuable as the fine white ones.

## COLOR AND LUSTRE

**A**LMOST every color of the rainbow is met with in pearls, their color having an important bearing on their value. Those for ornamental use are mostly white, yellowish white, pinkish or bluish white, and partake of the color of the Mother-of-Pearl layer in the shell in which they are formed. These colorings, to meet the standard of quality most in demand, must have a rich warm tint, as only such are becoming to everyone. Pearls of reddish brown, blackish gray, yellow, pale blue, light and dark brown, rose red and the beautiful black color, are found in both continents.

The Hindoos, Chinese and other peoples of Asia prefer the ones of a decided color, yellow especially be-

ing highly prized. This is because they regard them as less perishable, due, they imagine, to a greater hardness.

Usually Unios, or fresh water mussels, produce pearls of almost every color. Those found in Wisconsin are noted for their many colorings, lustre and beautiful appearance.

### LUSTRE

The lustre, or "orient", as it is called, that soft iridescent glow of a pearl, is the chief characteristic, combined with the color, that makes it beautiful and therefore valuable. Individual pearls differ considerably in lustre; those formed by the marine mollusks are as a rule superior in this quality to the pearls formed by the fresh water pearl mussel, and those lacking a good lustrous surface, no

matter what their color or shape, are never classed among pearls of fine quality.

It is the lamination of the surface, as well as the quality of the nacre in its construction, which is responsible for the pearl's lustre. The partly transparent but very translucent layers near the surface allow some light to pass through, which is again reflected outward from the deeper layers. This light, combined with that reflected from the outer surface, produces the impression called a "pearly lustre". The thinner the laminae the more beautiful the lustre and naturally the more valuable the pearl.

Where the outer nacreous layer of a pearl is dull or slightly discolored in a spot, affecting the lustre, it can sometimes be peeled off, the next layer exposed being in good condi-

tion, and possessing a lustrious surface. This of course, reduces the size of the pearl somewhat.

It is said that in Ceylon the natives feed pearls, which have become dull for one reason or another, to chickens. After lying in the bird's crop for several hours, where the movement and friction is supposed to restore the lustre to some degree, the fowl is killed and the pearl removed.

## WEIGHT, VALUE AND FORM

PEARLS are sold by their weight in grains rather than by carats, four grains being equal to a carat. Perfectly round pearls range in weight from the fraction of a grain to more than three hundred grains, but anything with a fine lustre is most rare weighing above one hundred, and these are called "paragons."

Special terms are used for pearls of particular sizes; for instance, those about the size of a cherry are termed "cherry pearls," and those not too small to be handled and dealt with separately, each exceeding twelve grains in weight, as "piece pearls." The "seed" or "ounce" pearls weigh less than one half a grain, and are sold in ounce packages. Then there is still a smaller size called "dust

pearls," which are too small for ornamental use.

In the East, pearls are grouped into ten different sizes, which is accomplished by running them through about nine sieve-like baskets, each one with different size holes; the first having the largest holes and the others graduating down to the smallest. Then the ten lots of different size pearls are sorted over and classified according to quality, lustre and shape, by an expert appraiser.

On the next page are some cuts of approximate sizes of pearls, to convey an idea of the different weights.

## VALUE

The value of fine pearls is quite comparable with that of the costliest gems worn, and has advanced greatly in the last ten years, due to the

1 Grain



8 Grain



2 Grain



10 Grain



3 Grain



12 Grain



5 Grain



14 Grain



6 Grain



18 Grain



7 Grain



22 Grain



increasing demand, as they seem to express more and more luxury, beauty and refinement. The woman of rank and wealth today values first among her jewels her necklace of pearls.

As in the case of precious stones, the value of pearls varies with their size, form and the general beauty of their appearance. The more perfect the form of a pearl, the more valuable does it become, for other things being equal, a pearl of irregular form is worth considerably less than one which is perfectly regular.

A pearl of the so called "first water" must possess beside a symmetrical form a smooth surface and a perfect "orient." It must be free from all blemishes and fractures, very translucent and possessed of a fine white color. Some pearls of deep color, showing a beautifully fine

lustre, are as costly as those of purest white. The lack of "orient," no matter how perfect the form or beautiful the color, makes a pearl comparatively valueless.

Large or beautiful pearls are not subject to any fixed prices, for the degree of color, "orient" and form has all to do with its valuation.

The price of a string of carefully selected pearls depends entirely upon its color, size, quality, form, and the length of time necessary to collect it. This often takes years to accomplish. Many women of today, after acquiring the average length necklace, increase its beauty and value by adding another pearl every now and then.

One should be most careful in pearl buying and do the selecting in pure daylight. Also, it is always

wise to know your dealer in such transactions. In some shops, particularly in Europe, the locality used for examination of pearls by customers is furnished with curtains and hangings of many colors and illuminated by a very soft or artificial light. This is most helpful when the dealer has imperfections or a certain lack of lustre to hide.

## FORM

Many are the forms of pearls produced by the mollusks, some of which are most fantastic, resembling insects, animals, fruit and even men. These and numbers of other forms are the irregular or "baroque" pearls.

Among the regular forms used and valued today, besides the spherical, are the following:

**Pear shaped**, which has a form like a pear.

**Button**: a pearl that is nearly round, having a flat or convex back.

**Drop shaped**: a long pearl somewhat like a spear head in form.

Then there are others which are irregular, such as:

**Petal pearls**: having the appearance or shape of a petal or leaf, flat and more pointed at one end than at the other.

**Wing pearls**: somewhat resembling a wing.

**Dog tooth**: a long narrow pearl, with one end slightly pointed.

## DRILLING OF PEARLS

THE drilling of pearls for mounting or stringing is a most delicate operation, as it is so easy to injure their surface. While modern machines are used considerably nowadays, drilling is still successfully done in Oriental countries with the bow or fiddle drill. This is a piece of wood or steel, with a very strong cord stretched from end to end, tight enough to bend it into the appearance of an archer's bow. By wrapping the cord around the grooved edge of a brass disk, which holds the drill in its end, the same is made to rotate by moving the bow up and down. The drill must, however, be revolved with almost perfect regularity, for fear of cracking the pearl's surface.

The pearl to be drilled may be held in the hand or by small forceps, having at the end a round cup-like holder lined with chamois. These special forceps are made with cup-like ends of different sizes, for large or small pearls and have a hole through the cup to allow the drill to penetrate.

In preparing to drill a pearl, a pair of calipers is generally used, with some coloring substance on its ends to mark the drill holes exactly opposite each other. Then placing the drill against the pearl in its holder, at the spot marked, the bow is moved up and down, not too rapidly until drilled half way through, after which the pearl is turned around and drilled from the other side as marked, both holes meeting in the center,

thus preventing any cracking in the surface.

At the present time, a number of first class jewelers drill pearls and modern methods are so perfected that there is no occasion for cracking or damaging a pearl. The work is done on a small specially constructed, motor-driven lathe, which revolves the pearl at a high rate of speed. The pearl is placed in a small cone shaped vise, called a "chuck", which, from the apex down to its flat surface, is split evenly in three parts, to allow the pearl to be gripped in the socket in the center of the flat surface of the cone.

In the make-ready, the cone shaped "chuck", as it is drawn into the lathe by a thumb screw at its other end, binds the pearl little by little, until the proper tension is

reached to hold it tightly without damaging its surface. There are quite a number of "chucks" that make up the equipment of the lathe, each having a different size socket to suit any pearl from a quarter of a grain in weight upward. The operator, after starting the motor, places his largest drill in an arm, (which acts as a guide and steadier) opposite the pearl and advances this drill by hand just deep enough into the pearl to penetrate the outer surface. After this he drills with a finer and more delicate one, withdrawing it every few seconds to prevent the drill from overheating.

This process, you will note, is just the opposite from the old way previously described, as the drill is held stationary and steady, while the pearl revolves. The revolving of the pearl

at a great speed, erradicates any chance of cracking its surface, and allows it to be drilled straight through, therefore making the hole accurate and at the same time small.

The holes made are always very small, as the making of them means a loss in weight, and this would be quite an item in the case of an exceptionally fine pearl.

## STRINGING

MOST skillful and deft is the process of stringing pearls, much more so than one would think. The silk thread used must be of the purest, without dye, and as strong and fine as possible. After the first pearl is tied to the clasp, by means of a knot, the thread is then run through the next pearl and between that and the one following a knot is tied; thereafter knots are tied between the second, third, fourth and fifth pearl, in making up a necklace, to prevent any great loss should the silk thread break.

Necklaces which are worn very much should be restrung every little while, as in time the thread stretches and the necklace has the appearance of being minus a pearl here and there.

Pearls, particularly fine ones, should be given as much care and attention as would be devoted to a rare piece of old lace or other valuable ornament, wiping them every now and then to remove dust or perspiration.

## PEARL COLLECTIONS AND NOTED PEARLS

**S**TANDING out most prominently among the wonderful collections of pearls in India is that of the Gaikwar of Baroda, that progressive and enlightened prince of India.

In this collection, most of which was gathered together by his predecessor, is a sash made up of a hundred rows of pearls, with a large tassel of pearls and emeralds at its end. Also, among the treasures, are seven rows of superb pearls, worth about a half a million dollars, a litter covered with seed pearls, and greatest of all, the most valuable jewel ornament in the world, a shawl or rug of pearls, about ten feet long

by six feet wide, made up of strings of pearls and said to be valued at several million dollars. The center and border of the shawl are also set with diamonds.

Another prince in India, the Rajah of Dholpur also possesses a magnificent collection, among which is a necklace of about eight strings of the most superb pearls. It is said that this necklace is the finest in India and worth millions of dollars.

### THE SOUTHERN CROSS

Most curious is that cluster of pearls known as "The Southern Cross", which is made up of nine pearls in the form of a Roman cross, about one and one-half inches long. The upright standard is composed of seven pearls and the arms are made up of one pearl on each side of the

second pearl from the top. These pearls are not perfectly round but are all flattened somewhat against each other where joined, and all have a slightly flat surface on one side of the cross. While the lustre is good, nevertheless, this curiosity would not bring a very big price were the pearls separated and sold as irregular ones. It was found off the Northwest coast of Australia in 1883, and it is said that when originally discovered it was in three pieces, comprising eight pearls. At that time another pearl of exactly the same form, etc., was procured and added to its length to make the cross of better proportion. Before placing it on the market the different parts were joined together with diamond cement and it has remained intact ever since.

## THE HOPE PEARL

This, one of the largest pearls known, was originally in the collection of Henry Philip Hope, of London. Of irregular form, it is about two inches long and weighs in the neighborhood of 1800 grains. It is somewhat of a pendant shape and its lustre, as well as its color, varies. The upper part of the pearl is of a fine white lustre, which gradually changes to a dark greenish tint at the lower end.

## THE VAN BUREN PEARLS AND OTHERS

The Van Buren pearls were sent to Martin Van Buren, President of the United States, in 1840, by the Iman of Muscat. This gift comprised two pendant pearls of about thirty grains

and a fine necklace of one-hundred and forty-eight pearls, the total weight of which is about seven hundred grains. During the last few years these pearls have been in the possession of the National Museum.

One of the finest pearls discovered in this country is that spoken of as "The Paterson" or "Queen Pearl". This was found in Notch Brook near Paterson, New Jersey by a man named Quackenbush, about the year 1857, and was sold for fifteen hundred dollars. Today it is worth approximately fourteen thousand dollars.

About the finest collection of black pearls in Europe is that of the Duchess of Anhalt-Dessau. These took centuries to collect, and are heirlooms of that family, each member being morally bound not to sell any of them unless as a last resort.

The Nordica pearl, which takes its name from the noted *prima donna*, having been purchased by her, is a fine pearl of greenish color, weighing one hundred and seventy-five grains. Of a drop shape, it was worn as a pendant in Madame Nordica's necklace of colored pearls.

Most interesting is the Morgan collection of American pearls, at the American Museum of National History of New York. It is composed of about nine hundred pearls of every color and form, and includes not only those from our inland waters, but also those from the Gulf of Mexico and the Pacific and Atlantic Coasts.











